

THICK DASHED LINES =  
CLEARING LIMITS JUST OUTSIDE  
EXCAVATION LINES OR FINAL  
FILL SLOPES (ENGINEER WILL FLAG)

MATERIAL STAGING + STOCKPILE  
AREA (PROTECT TREES)

EXISTING  
ROAD

TO SOUTH LYMAN  
FERRY ROAD

REFERENCE ELEVATION  
= 30.0' (NAIL IN TREE)

BLACK CIRCLES =  
TREES TO REMOVE

0 5 10 20 FEET  
SCALE: 1" = 10'

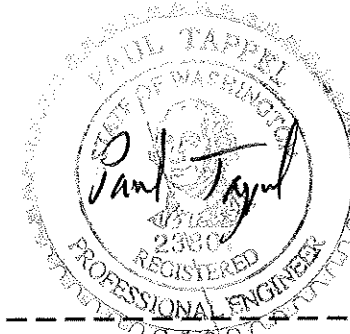
NORTH  
(APPROX.)

NOTE: PROJECT  
ELEVATIONS ARE  
BASED ON ASSUMED  
ELEVATION AND WILL  
NOT MATCH ACTUAL  
ELEVATIONS.

EXCAVATION CONTOURS  
(SOLID BLACK)

EXISTING CONTOURS  
LIGHT DASHED LINES

2'-DIA. PUMP



NOTE: AFTER BRIDGE CONSTRUCTION,  
SPREAD 5 lb. EROSION CONTROL  
SEEDS OVER DISTURBED SOILS  
SLOPING TOWARDS SLOUGH, THEN  
SPREAD 10 BALES STRAW MULCH.  
FLAT STAGING + STOCKPILE AREAS  
DO NOT NEED SEED OR STRAW.

TO DAY CREEK  
MEADOWS

MATERIAL STAGING + STOCKPILE  
AREA (PROTECT TREES)

STA. 2+00

#### Site Preparation & Water Control Notes:

1. Clearing shall be completed prior to other work. One 24"-dia. tree shall be removed. All clearing debris shall be disposed on-site, within 500' of project, as directed by landowner (pile & mash down).
2. Clear staging + stockpile areas (protect trees).
3. Slough expected to be isolated pools. Pump w/ 2"-dia. trashpump. SFEG personnel to be on-site during pumping to net any fish and return them to Skagit River.
4. No utilities buried within project site.
5. Separately stockpile concrete chunks during project excavation; they will be buried on-site for new approaches (road fill) to bridge ends.
6. Remove and dispose (off-site) 3 existing culverts between 30"-dia. and 60"-dia.
7. For excavation within slough, stockpile native sand + gravel; some will be used in project backfill. Where excavation approaches standing water, pump down + leave 1'-high berm between water and rock slope trenches, before excavating rock slope trenches.
8. Excavate for rock slopes and footing pads. Between rock trenches, excavate slough to final elevations as shown this drawing (also see dwgs. 3 + 4). Place rock slopes, backfill with sand & gravel, set footings. Rock for rock slopes may be placed in shallow standing water.
9. Supply and operate a gas-powered trashpump to remove muddy water from the excavated trenches as required. Discharge to flat land within 100' of site, for infiltration into the ground.
10. After completion of rock slopes and footing placement, scatter sand & gravel over slough channel, and backfill from slough edges to footings (see section).
11. Place bridge modules and assemble bridge, then build new road sections per site plan.
12. Spread erosion control seeds and straw mulch over disturbed soils.

DECEMBER 2015

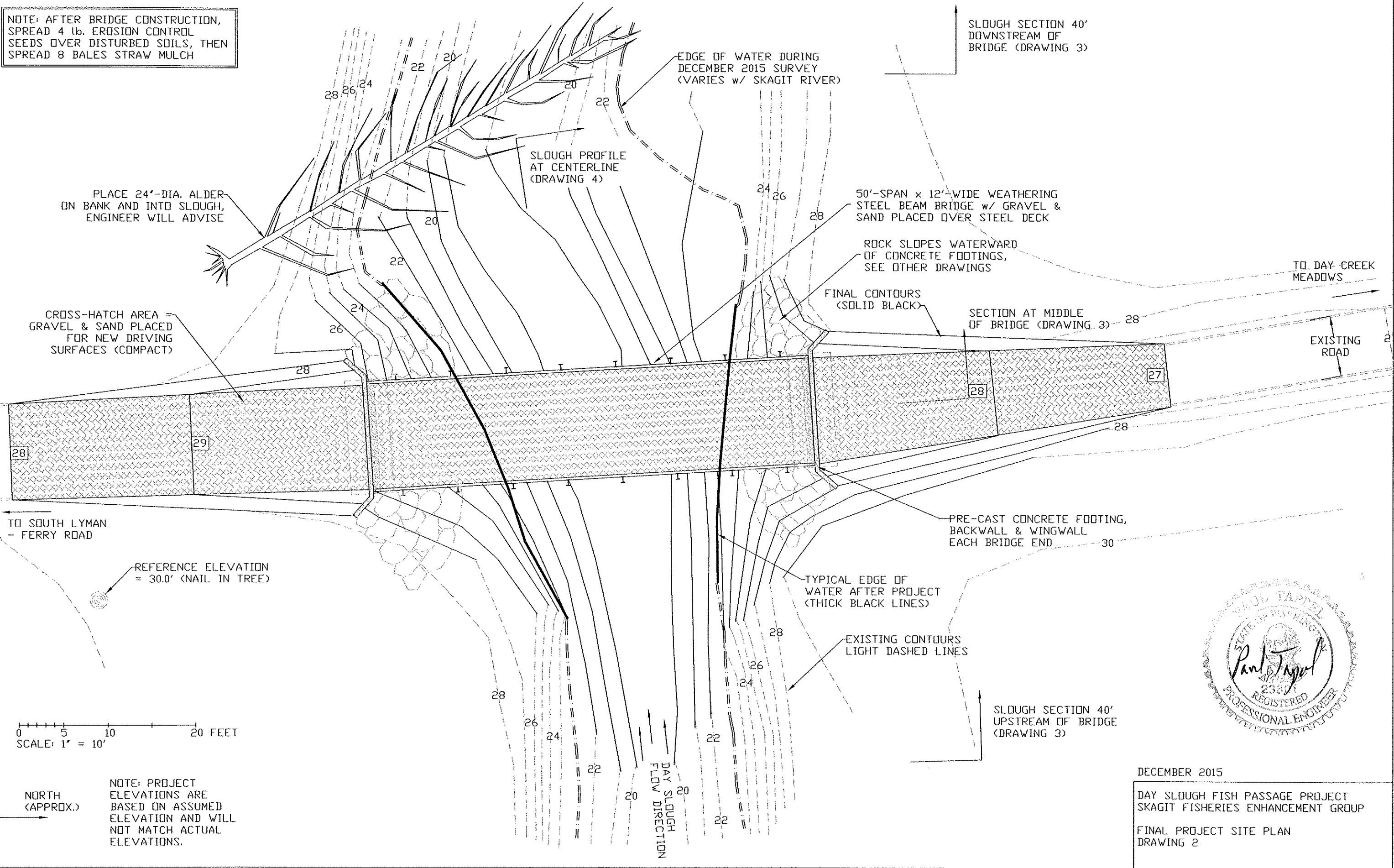
DAY SLOUGH FISH PASSAGE PROJECT  
SKAGIT FISHERIES ENHANCEMENT GROUP

SITE PREPARATION & WATER CONTROL  
DRAWING 1

EDGE OF WATER DURING  
DECEMBER 2015 SURVEY  
(VARIES W/ SKAGIT RIVER)

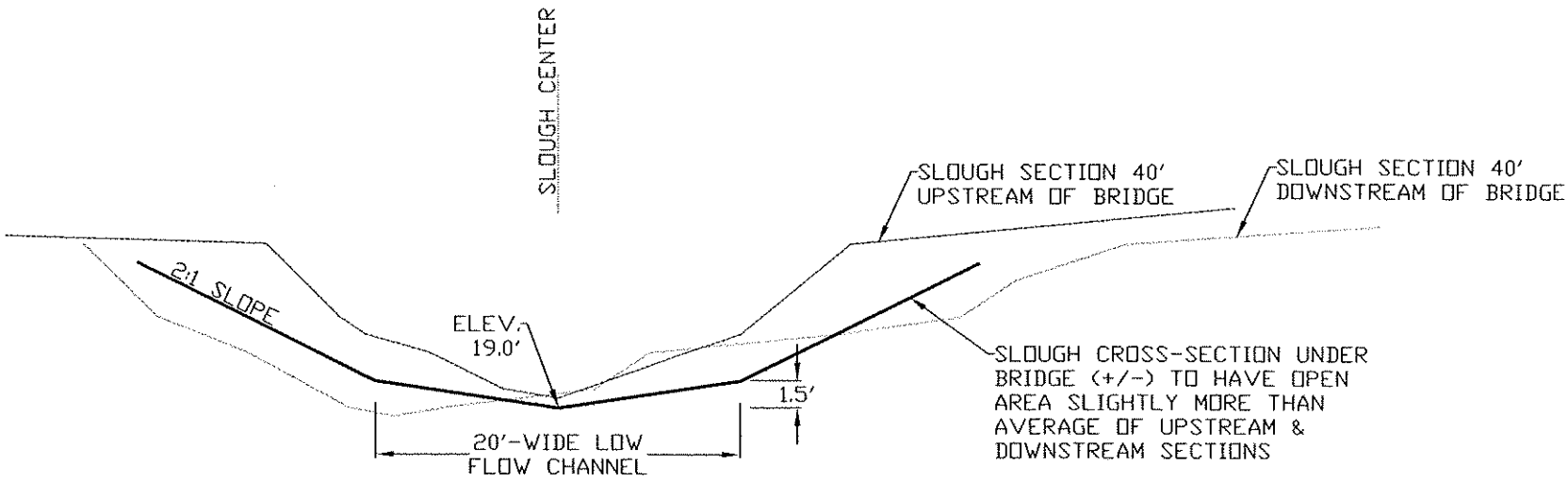
DAY SLOUGH  
FLOW DIRECTION

NOTE: AFTER BRIDGE CONSTRUCTION, SPREAD 4 lb. EROSION CONTROL SEEDS OVER DISTURBED SOILS, THEN SPREAD 8 BALES STRAW MULCH

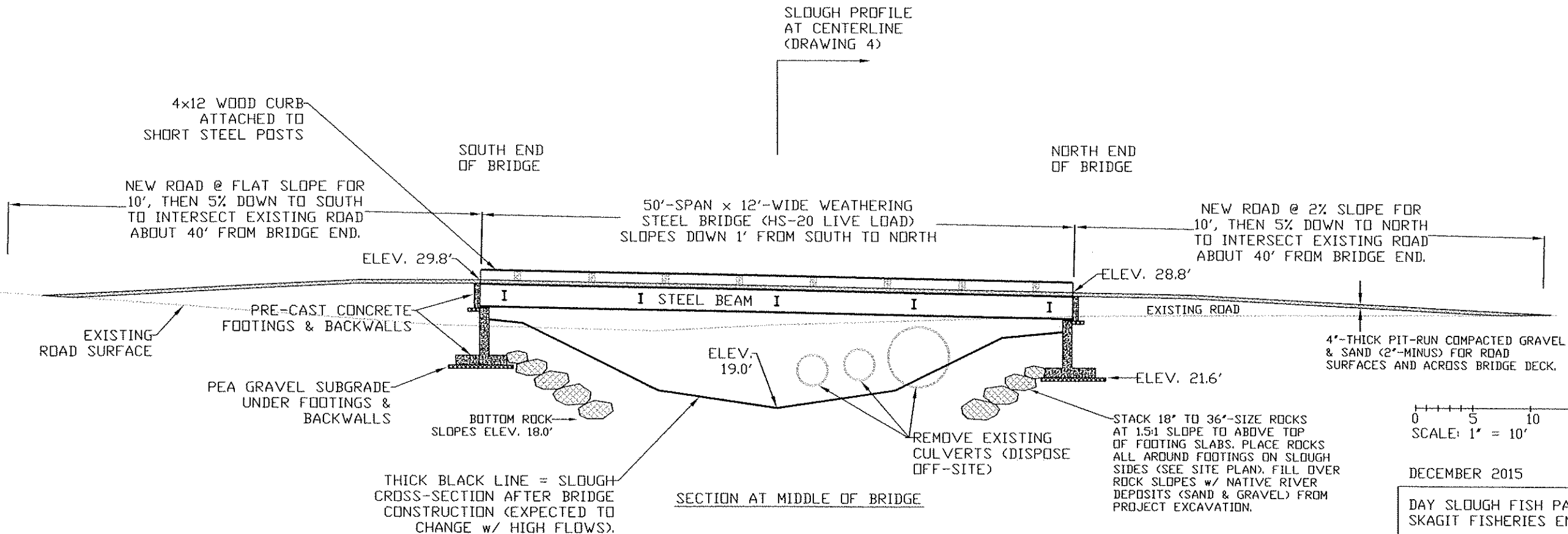


**Notes for Bridge & Slough Design:**

1. Excavation of the slough at the existing crossing will result in a slough cross-section approximately equal to upstream and downstream sections. High flows during Skagit River flooding are expected to modify the slough cross-section under the bridge, and the rock slope(s) and footing wall(s) may be exposed. Moderate changes to the slough cross-section near or under the bridge, by natural sediment erosion and/or deposition, will not adversely affect the proposed bridge.
2. High river flows and high slough flows will completely submerge the bridge. Steel beams welded to anchor plates, which will be bolted to steel anchors imbedded in the concrete footings, will securely hold the bridge in-place even when completely submerged.
3. Bridge beams will be 24"-deep (maximum), which will probably require 6 beams for the 50'-span (vs. 4 beams if 36" deep). The bridge will have 1'-high wood curbs (4x12 lumber) instead of higher steel guardrails. Short beams and the short curbs will present a minimum bridge section to high flows and wood debris coming down the slough, to minimize hydraulic and debris loads on the bridge.
4. Bridge deck will be a maximum = 4' higher than existing road at the south end of bridge. The entire bridge superstructure will be equal elevation or higher than the existing road surface crossing of Day Slough.
5. Concrete chunks within the existing road fill across slough will be entirely removed from slough. These chunks will be used for construction of new road sections on both sides of bridge, for erosion-resistant approaches to the new bridge deck.



SLOUGH SECTIONS (SEE DWG. 2)



SECTION AT MIDDLE OF BRIDGE

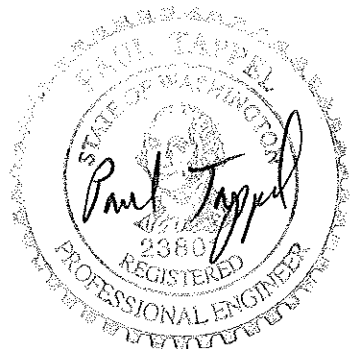
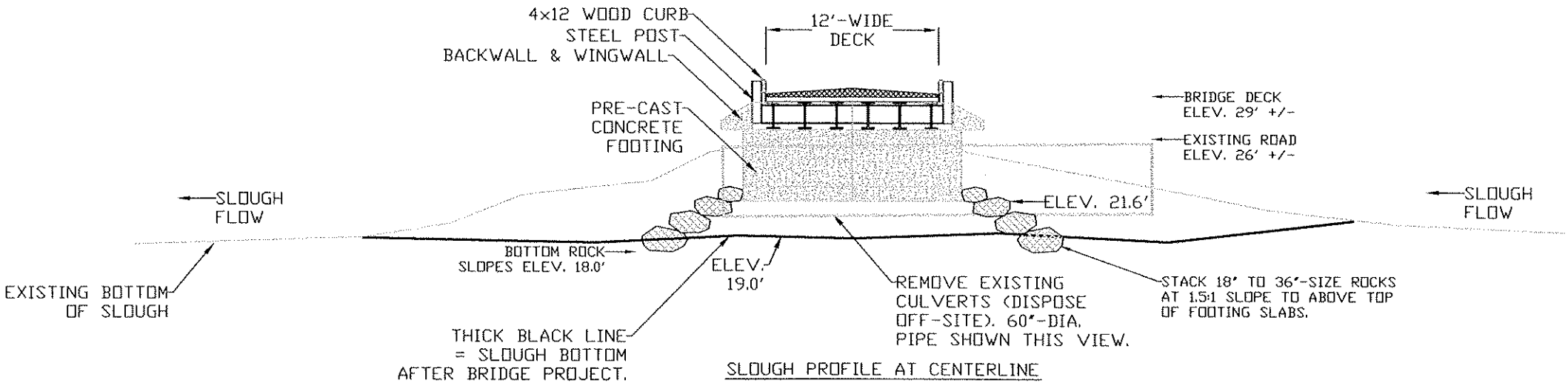
0 5 10 20 FEET  
SCALE: 1" = 10'

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DAY SLOUGH FISH PASSAGE PROJECT  
SKAGIT FISHERIES ENHANCEMENT GROUP

BRIDGE AND SLOUGH SECTIONS  
DRAWING 3

NOTE: NORTH BRIDGE END &  
FOOTING SHOWN THIS VIEW. SOUTH  
END WILL BE 1' HIGHER ELEVATION.



0 5 10 20 FEET  
SCALE: 1" = 10'

DECEMBER 2015

DAY SLOUGH FISH PASSAGE PROJECT  
SKAGIT FISHERIES ENHANCEMENT GROUP  
SLOUGH PROFILE AT CENTERLINE  
DRAWING 4